

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	25367	quantum near2 (well dot)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/09/11 17:00
L4	2093289	laser beam light	US-PGPUB; USPAT	OR	ON	2007/09/11 17:00
L5	525	AlGaP AlxGaxPx	US-PGPUB; USPAT	OR	ON	2007/09/11 17:00
L6	511	indirect near2 (semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2007/09/11 17:00
L7	117	L3 and (L6 same L4)	US-PGPUB; USPAT	OR	ON	2007/09/11 17:00
L8	4	L7 and L5	US-PGPUB; USPAT	OR	ON	2007/09/11 17:00
L9	1147592	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/09/11 17:01
L10	23576	quantum near5 (well structure)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/09/11 17:01
L11	429224	asymmetric\$2 unbalanced irregular\$2	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/09/11 17:01
L12	227	L9 same L10 same L11	US-PGPUB; USPAT; EPO; JPO	OR	ON	2007/09/11 17:01
S1	512788	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2005/09/08 14:48
S2	512654	(indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2005/09/08 14:59
S3	1682502	laser beam light	US-PGPUB; USPAT	OR	ON	2005/09/08 15:12
S4	79680	S2 near5 S3	US-PGPUB; USPAT	OR	ON	2005/09/08 14:59
S5	434894	detector senor photosensor	US-PGPUB; USPAT	OR	ON	2005/09/08 15:02
S6	7653	S4 same S5	US-PGPUB; USPAT	OR	ON	2005/09/08 14:59
S7	20619	optical adj5 head	US-PGPUB; USPAT	OR	ON	2005/09/08 14:55
S8	651	S6 same S7	US-PGPUB; USPAT	OR	ON	2005/09/08 14:55

## EAST Search History

S9	39208	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/02/08 13:11
S10	519	S8 and S9	US-PGPUB; USPAT	OR	ON	2005/09/08 14:57
S11	12490	quantum near5 well	US-PGPUB; USPAT	OR	ON	2006/02/08 13:10
S12	0	S8 same S11	US-PGPUB; USPAT	OR	ON	2005/09/08 14:57
S13	16	S8 and S11	US-PGPUB; USPAT	OR	ON	2005/09/08 14:57
S14	399	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2005/09/09 13:38
S15	83	S14 near5 S3	US-PGPUB; USPAT	OR	ON	2005/09/08 14:59
S16	2	S15 same S5	US-PGPUB; USPAT	OR	ON	2005/09/08 15:02
S17	852952	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2005/09/09 13:39
S18	2	S15 same S17	US-PGPUB; USPAT	OR	ON	2005/09/08 15:03
S19	16	S15 and S17	US-PGPUB; USPAT	OR	ON	2005/09/08 15:03
S20	7	S19 and S11	US-PGPUB; USPAT	OR	ON	2005/09/08 15:03
S21	13695	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2005/09/09 13:57
S22	3230065	laser beam light material	US-PGPUB; USPAT	OR	ON	2005/09/09 13:39
S23	173	S14 near5 S22	US-PGPUB; USPAT	OR	ON	2005/09/08 15:13
S24	64739	(barrier near2 layer) same (active nesr2 layer)	US-PGPUB; USPAT	OR	ON	2005/09/08 15:14
S25	6	S23 same S24	US-PGPUB; USPAT	OR	ON	2005/09/08 15:15
S27	27	S23 and S24 and S21	US-PGPUB; USPAT	OR	ON	2005/09/08 15:22
S28	7	S27 and S17	US-PGPUB; USPAT	OR	ON	2005/09/08 15:22
S29	399	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2005/09/09 13:38
S30	3230065	laser beam light material	US-PGPUB; USPAT	OR	ON	2005/09/09 13:39

## EAST Search History

S31	295387	lens\$2	US-PGPUB; USPAT	OR	ON	2005/09/09 13:39
S32	852952	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2005/09/09 13:39
S33	1	(S29 near5 S30) same S31 same S32	US-PGPUB; USPAT	OR	ON	2005/09/09 13:41
S34	11	(S29 near5 S30) and S31 and S32	US-PGPUB; USPAT	OR	ON	2005/09/09 14:01
S35	61317	S30 same S31 same S32	US-PGPUB; USPAT	OR	ON	2005/09/09 13:59
S36	39208	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2005/09/09 13:53
S37	5803	S35 and S36	US-PGPUB; USPAT	OR	ON	2005/09/09 13:55
S38	13695	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2005/09/09 13:57
S39	61	S37 and S38	US-PGPUB; USPAT	OR	ON	2005/09/09 13:58
S40	1	S29 same S30 same S31 same S32	US-PGPUB; USPAT	OR	ON	2005/09/09 14:01
S41	20	S29 and S30 same S31 same S32	US-PGPUB; USPAT	OR	ON	2005/09/09 14:01
S42	35	S29 and S30 and S31 and S32	US-PGPUB; USPAT	OR	ON	2005/09/12 10:32
S43	338100	((optical compact) near2 (disk\$2 disc\$2 medium)) CD DvD CDROM DvDROM "CD-ROM" "DvD-ROM" (digital near2 (versatile video) near2 (disk disc))	US-PGPUB; USPAT	OR	ON	2005/09/09 14:46
S44	19	S42 and S43	US-PGPUB; USPAT	OR	ON	2005/09/09 14:46
S45	128618	cooler "heat sink" heat-sink heatsink	US-PGPUB; USPAT	OR	ON	2005/09/12 10:34
S46	399	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2005/09/12 10:34
S47	3230064	laser beam light material	US-PGPUB; USPAT	OR	ON	2005/09/12 10:34
S48	295387	lens\$2	US-PGPUB; USPAT	OR	ON	2005/09/12 10:34
S49	852953	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2005/09/12 10:34
S50	35	S46 and S47 and S48 and S49	US-PGPUB; USPAT	OR	ON	2005/09/12 10:34

## EAST Search History

S51	3	S45 and S50	US-PGPUB; USPAT	OR	ON	2005/09/12 10:35
S52	543538	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/02/07 10:29
S53	543391	(indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S54	1759567	laser beam light	US-PGPUB; USPAT	OR	ON	2006/02/07 10:29
S55	84440	S53 near5 S54	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S56	454333	detector senor photosensor	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S57	8042	S55 same S56	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S58	21654	optical adj5 head	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S59	679	S57 same S58	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S60	40798	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/02/07 10:34
S61	540	S59 and S60	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S62	13366	quantum near5 well	US-PGPUB; USPAT	OR	ON	2006/02/07 10:31
S63	0	S59 same S62	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S64	18	S59 and S62	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S65	420	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S66	88	S65 near5 S54	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S67	2	S66 same S56	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S68	895868	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S69	2	S66 same S68	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S70	16	S66 and S68	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S71	7	S70 and S62	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03

## EAST Search History

S72	14684	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S73	3355498	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S74	181	S65 near5 S73	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S75	68723	(barrier near2 layer) same (active nesr2 layer)	US-PGPUB; USPAT	OR	ON	2006/02/07 10:30
S76	6	S74 same S75	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S77	27	S74 and S75 and S72	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S78	7	S77 and S68	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S79	420	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S80	3355498	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S81	310480	lens\$2	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S82	895868	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S83	1	(S79 near5 S80) same S81 same S82	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S84	11	(S79 near5 S80) and S81 and S82	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S85	64932	S80 same S81 same S82	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S86	40798	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S87	6111	S85 and S86	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S88	14684	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S89	61	S87 and S88	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S90	1	S79 same S80 same S81 same S82	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S91	22	S79 and S80 same S81 same S82	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S92	38	S79 and S80 and S81 and S82	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03

## EAST Search History

S93	367763	((optical(compact) near2 (disk\$2 disc\$2 medium)) CD DvD CDROM DvDROM "CD-ROM" "DvD-ROM" (digital near2 (versatile video) near2 (disk disc))	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S94	21	S92 and S93	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S95	134235	cooler "heat sink" heat-sink heatsink	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S96	420	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/02/07 10:28
S97	3355498	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S98	310480	lens\$2	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S99	895868	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S100	38	S96 and S97 and S98 and S99	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S101	3	S95 and S100	US-PGPUB; USPAT	OR	ON	2006/02/07 10:03
S102	1656304	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:39
S103	4431039	laser beam light	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:29
S104	95426	(active near2 layer\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:30
S105	21914	quantum near5 well	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:31

## EAST Search History

S10 6	249119	asymmetric\$2 unbalanced	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:32
S10 7	204	S102 and S103 and S104 and (S105 same S106)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:35
S10 8	95910	"369"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:34
S10 9	1	S102 and S103 and S104 and (S105 same S106) and S108	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:36
S11 0	749930	((optical compact) near2 (disk\$2 disc\$2-medium)) CD DvD CDROM DvDROM "CD-ROM" "DvD-ROM" (digital near2 (versatile video) near2 (disk disc))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:35
S11 1	51	S102 and S103 and S104 and (S105 same S106) and S110	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 10:43
S11 2	2	("4712219").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/07 10:43
S11 3	168208	(indirect near2 semi-conductor semiconductor (semi adj2 conductor)) same laser	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:41

## EAST Search History

S11 4	1656304	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:39
S11 5	4431039	laser beam light	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:39
S11 6	95426	(active near2 layer\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 15:24
S11 7	21914	quantum near5 well	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:39
S11 8	249119	asymmetric\$2 unbalanced	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:43
S11 9	95910	"369"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:39
S12 0	1	S114 and S115 and S116 and (S117 same S118) and S119	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:40
S12 1	1	S113 and S115 and S116 and (S117 same S118) and S119	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:41

## EAST Search History

S12 2	70	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor))) same laser	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 14:41
S12 3	1	S122 and S115 and S116 and (S117 same S118) and S119	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 15:10
S12 4	520731	asymmetric\$2 unbalanced irregular\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 13:10
S12 5	1	S122 and S115 and S116 and (S117 same S124) and S119	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 15:23
S12 6	1	S122 and S115 and S116 and (S117 same S124)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 15:24
S12 7	116239	((transmission transmitting active) near2 layer\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 15:24
S12 8	1	S122 and S115 and S127 and (S117 same S124)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/07 15:25
S12 9	733445	asymmetric\$2 unbalanced irregular\$2 disorder\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 13:10
S13 0	14684	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/02/08 13:11

## EAST Search History

S13 1	739	S129 same S130	US-PGPUB; USPAT	OR	ON	2006/02/08 13:12
S13 2	95910	"369"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/02/08 13:11
S13 3	3	S131 and S132	US-PGPUB; USPAT	OR	ON	2006/02/08 13:11
S13 4	386	S129 near5 S130	US-PGPUB; USPAT	OR	ON	2006/02/08 13:12
S13 5	1	S132 and S134	US-PGPUB; USPAT	OR	ON	2006/02/08 13:12
S13 6	573761	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:50
S13 7	573607	(indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S13 8	1834515	laser beam light	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S13 9	88910	S137 near5 S138	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 0	473295	detector senor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 1	8353	S139 same S140	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 2	22680	optical adj5 head	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 3	691	S141 same S142	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 4	42162	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 5	550	S143 and S144	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 6	14174	quantum near5 well	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 7	0	S143 same S146	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 8	18	S143 and S146	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S14 9	439	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25

## EAST Search History

S15 0	89	S149 near5 S138	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 1	2	S150 same S140	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 2	938196	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 3	2	S150 same S152	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 4	16	S150 and S152	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 5	7	S154 and S146	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 6	15602	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:51
S15 7	3477440	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 8	187	S149 near5 S157	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S15 9	72476	(barrier near2 layer) same (active nesr2 layer)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 0	6	S158 same S159	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 1	27	S158 and S159 and S156	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 2	7	S161 and S152	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 3	439	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 4	3477440	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 5	325002	lens\$2	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 6	938196	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 7	1	(S163 near5 S164) same S165 same S166	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 8	11	(S163 near5 S164) and S165 and S166	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S16 9	68412	S164 same S165 same S166	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 0	42162	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25

## EAST Search History

S17 1	6382	S169 and S170	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 2	15602	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 3	64	S171 and S172	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 4	1	S163 same S164 same S165 same S166	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 5	23	S163 and S164 same S165 same S166	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 6	42	S163 and S164 and S165 and S166	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 7	396318	((optical compact) near2 (disk\$2 disc\$2 medium)) CD DvD CDROM DvDROM "CD-ROM" "DvD-ROM" (digital near2 (versatile video) near2 (disk disc))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 8	21	S176 and S177	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S17 9	139508	cooler "heat sink" heat-sink heatsink	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 0	439	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 1	3477440	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 2	325002	lens\$2	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 3	938196	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 4	42	S180 and S181 and S182 and S183	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 5	3	S179 and S184	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 6	573761	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 7	573607	(indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 8	1834515	laser beam light	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S18 9	88910	S187 near5 S188	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25

## EAST Search History

S19 0	473295	detector senor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 1	8353	S189 same S190	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 2	22680	optical adj5 head	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 3	691	S191 same S192	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 4	42162	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 5	550	S193 and S194	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 6	14174	quantum near5 well	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 7	0	S193 same S196	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 8	439	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S19 9	89	S198 near5 S188	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 0	938196	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 1	2	S199 same S200	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 2	16	S199 and S200	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 3	15602	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 4	3477440	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 5	187	S198 near5 S204	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 6	72476	(barrier near2 layer) same (active nesr2 layer)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 7	439	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 8	3477440	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S20 9	325002	lens\$2	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 0	938196	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25

## EAST Search History

S21 1	68412	S208 same S209 same S210	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 2	42162	"369"/\$.ccls.	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 3	6382	S211 and S212	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 4	15602	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 5	1	S207 same S208 same S209 same S210	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 6	23	S207 and S208 same S209 same S210	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 7	396318	((optical compact) near2 (disk\$2 disc\$2 medium)) CD DvD CDROM DvDROM "CD-ROM" "DvD-ROM" (digital near2 (versatile video) near2 (disk disc))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 8	139508	cooler "heat sink" heat-sink heatsink	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S21 9	439	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor)))	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 0	3477440	laser beam light material	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 1	325002	lens\$2	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 2	938196	detector sensor photosensor	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 3	42	S219 and S220 and S221 and S222	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 4	1	(S207 near5 S208) same S209 same S210	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 5	18	S193 and S196	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 6	2	S199 same S190	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 7	7	S202 and S196	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 8	6	S205 same S206	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S22 9	27	S205 and S206 and S203	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S23 0	7	S229 and S200	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25

## EAST Search History

S23 1	11	(S207 near5 S208) and S209 and S210	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S23 2	64	S213 and S214	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S23 3	42	S207 and S208 and S209 and S210	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S23 4	21	S233 and S217	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S23 5	3	S218 and S223	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S23 6	1705612	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S23 7	4545512	laser beam light	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S23 8	99175	(active near2 layer\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S23 9	22826	quantum near5 well	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 0	257704	asymmetric\$2 unbalanced	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 1	214	S236 and S237 and S238 and (S239 same S240)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25

## EAST Search History

S24 2	97274	"369"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 3	1	S236 and S237 and S238 and (S239 same S240) and S242	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 4	785583	((optical compact) near2 (disk\$2 disc\$2 medium)) CD DvD CDROM DvDROM "CD-ROM" "DvD-ROM" (digital near2 (versatile video) near2 (disk disc))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 5	54	S236 and S237 and S238 and (S239 same S240) and S244	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 6	2	("4712219").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/06/15 15:25
S24 7	173525	(indirect near2 semi-conductor semiconductor (semi adj2 conductor)) same laser	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 8	1705612	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S24 9	4545512	laser beam light	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25

## EAST Search History

S25 0	99175	(active near2 layer\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 1	22826	quantum near5 well	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 2	257704	asymmetric\$2 unbalanced	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 3	97274	"369"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 4	1	S248 and S249 and S250 and (S251 same S252) and S253	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 5	1	S247 and S249 and S250 and (S251 same S252) and S253	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 6	73	(indirect near2 (semi-conductor semiconductor (semi adj2 conductor))) same laser	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 7	1	S256 and S249 and S250 and (S251 same S252) and S253	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25

## EAST Search History

S25 8	536094	asymmetric\$2 unbalanced irregular\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S25 9	1	S256 and S249 and S250 and (S251 same S258) and S253	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S26 0	1	S256 and S249 and S250 and (S251 same S258)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S26 1	121217	((transmission transmitting active) near2 layer\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S26 2	1	S256 and S249 and S261 and (S251 same S258)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S26 3	757845	asymmetric\$2 unbalanced irregular\$2 disorder\$2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:51
S26 4	15602	quantum near5 (well structure)	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S26 5	763	S263 same S264	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S26 6	97274	"369"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:25
S26 7	3	S265 and S266	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S26 8	397	S263 near5 S264	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25

## EAST Search History

S26 9	1	S266 and S268	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S27 0	397	S263 near5 S264	US-PGPUB; USPAT	OR	ON	2006/06/15 15:25
S27 1	1013367	(indirect near3 laser) (indirect near2 semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/06/15 15:50
S27 2	20177	quantum near5 (well structure)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/06/15 15:51
S27 3	377516	asymmetric\$2 unbalanced irregular\$2	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/06/15 15:51
S27 4	2069	S271 and S272 and S273	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/15 15:52
S27 5	209	S271 same S272 same S273	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/06/15 15:54
S27 6	510853	lens\$2	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/06/15 15:54
S27 7	31	S275 and S276	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/06/15 15:54
S27 8	22672	quantum near2 (well dot)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/12/18 14:50
S28 0	1941016	laser beam light	US-PGPUB; USPAT	OR	ON	2006/12/18 14:51
S28 4	495	AlGaP AlxGaxPx	US-PGPUB; USPAT	OR	ON	2006/12/18 14:54
S28 6	465	indirect near2 (semi-conductor semiconductor (semi adj2 conductor))	US-PGPUB; USPAT	OR	ON	2006/12/18 14:54
S28 7	17	S278 same S286 same S280	US-PGPUB; USPAT	OR	ON	2006/12/18 14:56
S28 8	106	S278 and (S286 same S280)	US-PGPUB; USPAT	OR	ON	2006/12/18 14:56
S28 9	1	S287 and S284	US-PGPUB; USPAT	OR	ON	2006/12/18 14:56
S29 0	4	S288 and S284	US-PGPUB; USPAT	OR	ON	2006/12/18 14:56

## EAST Search History

S29 1	15370	semiconductor and sato.in.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/12/18 15:29
S29 2	2	(("6452215") or ("6072196")).PN.	US-PGPUB; USPAT	OR	OFF	2006/12/18 15:29
S29 3	2	S292 and confin\$7	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/12/18 15:29
S29 4	1	"6741538"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/12/18 15:55